AGENTS OF CHANGE FOR EQUITY

Bridging the Gap Between Student Health and Academic Achievement: Utilizing the Whole School, Whole Community, Whole Child Model

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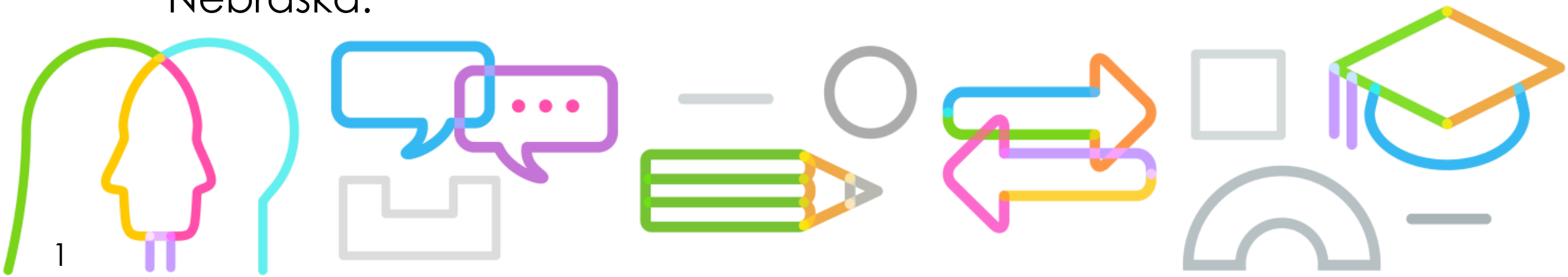
Nebraska Healthy Schools Program

- In the fall of 2018 the Department of Education received funding to work to:
  - Support academic achievement through professional development and training for schools around student health efforts at an intensive level for eight targeted school districts.
  - Address with all interested schools how supporting student connectedness, health and well-being can better support academic achievement and learning, earning and living in Nebraska.



Connection Between Health & Academics

Engagement

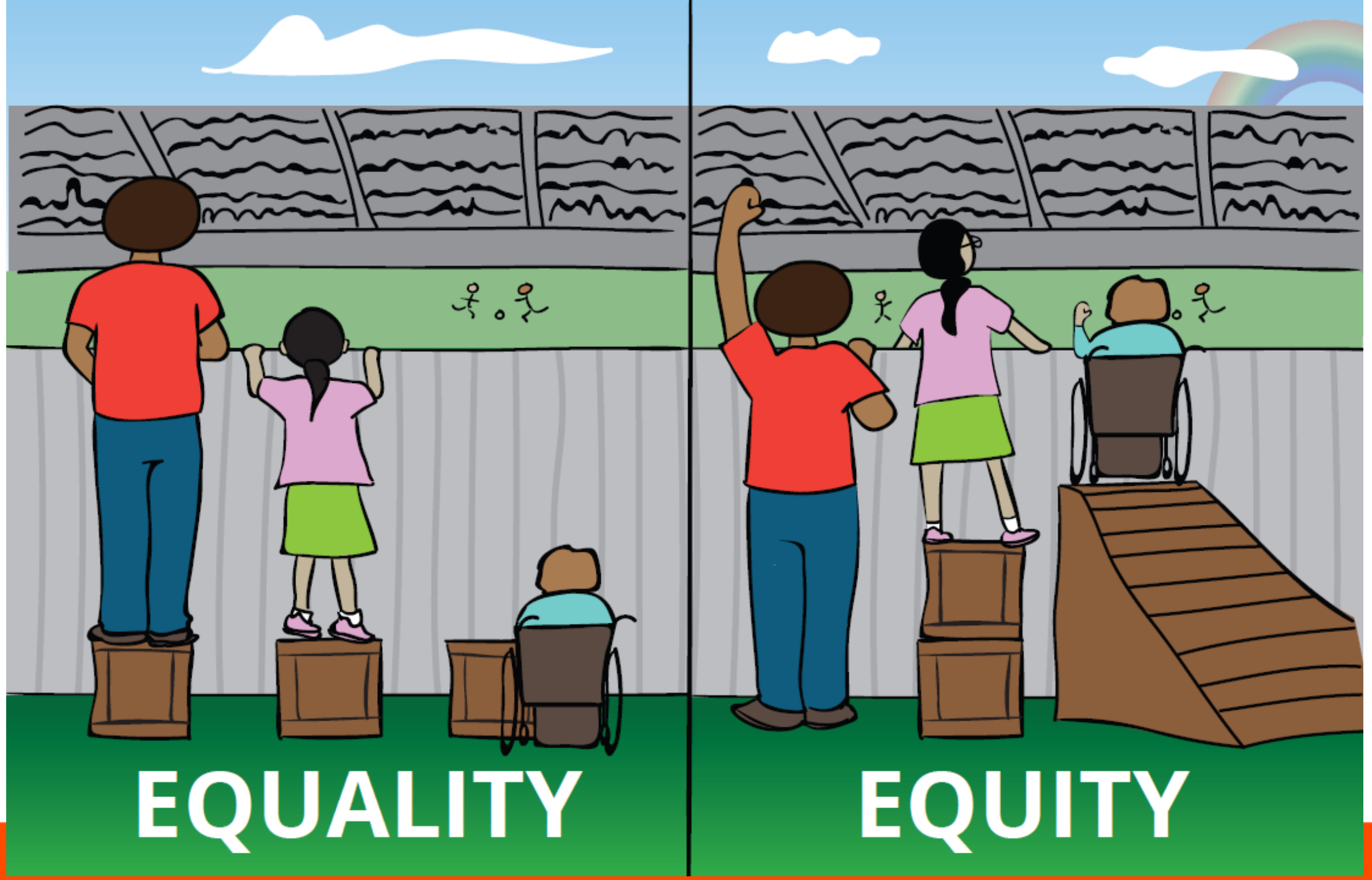
1 in 3

5th- 12th graders

Wellbeing

Hope

Are Success Ready


EQUALITY
EQUITY

Community Health Endowment of Lincoln

Place Matters- More Than Ever

Average Years
Excluded
City Limits

Life Expectancy

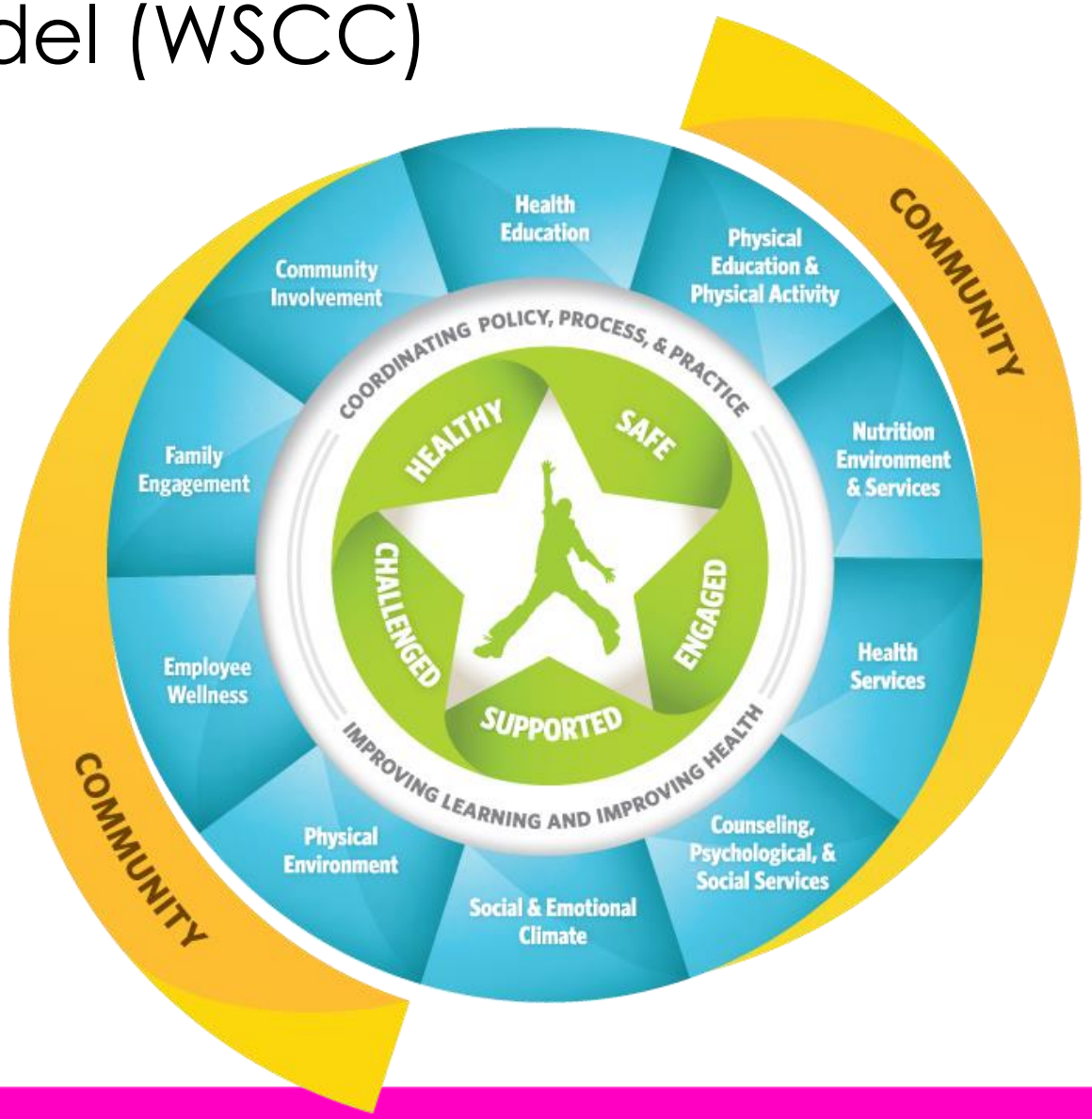
The average life expectancy for babies born to mothers in Lincoln varies dramatically across the city. Babies born to mothers living in southeast Lincoln can expect to live nearly three decades longer than babies born to mothers in central Lincoln just a few miles away.

3,6

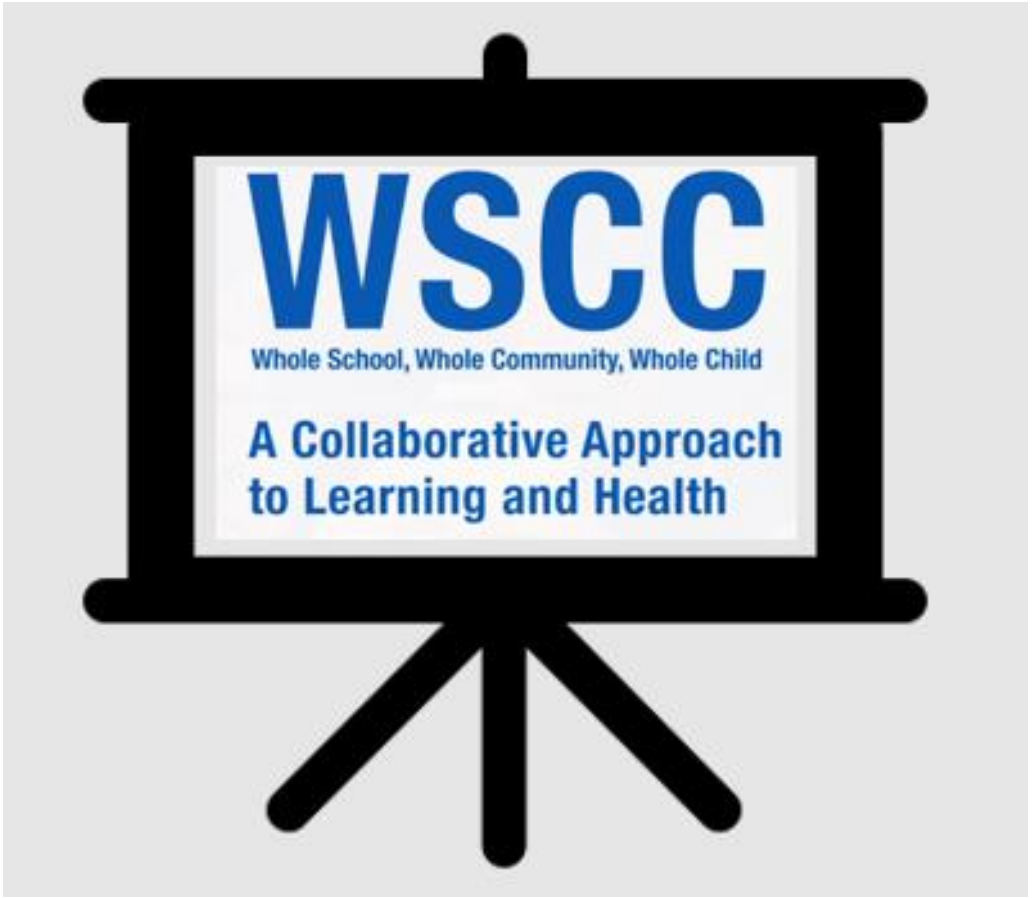
Data Source: Lincoln-Lancaster County Health Department

Success Ready- Utilizing the Whole School, Whole Community, Whole Child Model (WSCC)

- Places the child at the center
- Takes a comprehensive approach to supporting learning and health
- Calls for greater collaboration across sectors
- Puts the child at the center to support student success



VIDEO:
Overview of the WSCC Model

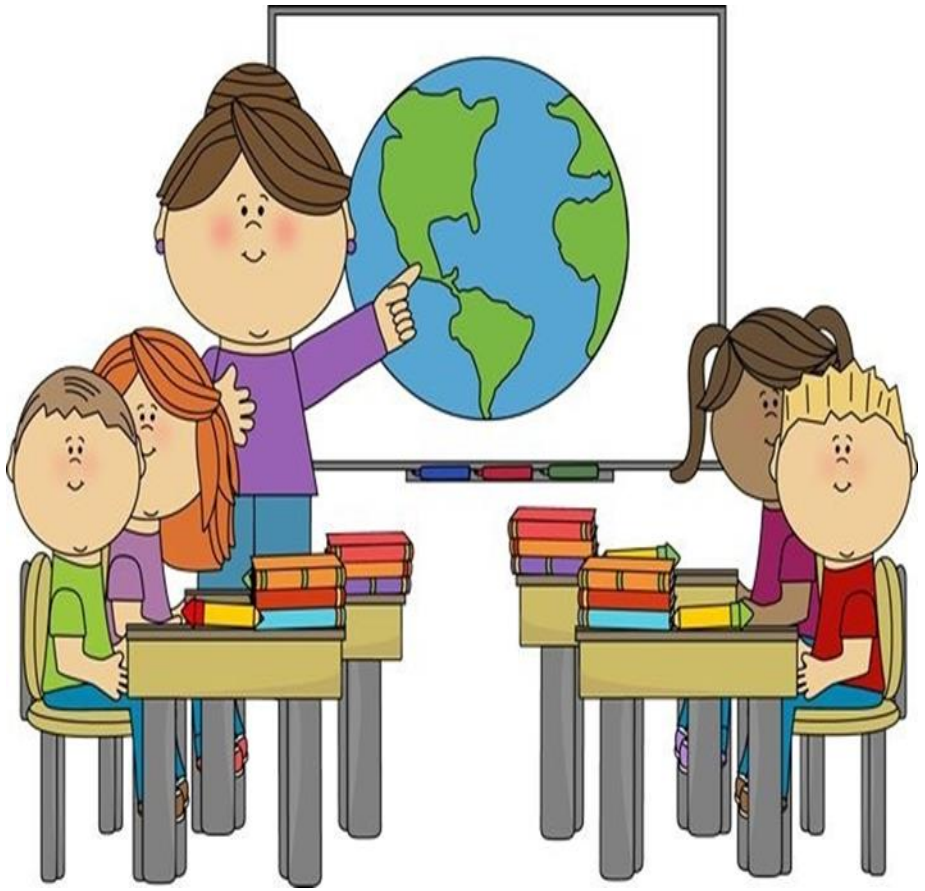


THE WSCC MODEL IN ACTION

A framework that can be modified and adapted to meet the unique needs of districts, schools, and communities.

Chronic Disease Management For Student Success

Supporting Student Health



We know ***healthy*** students do better in school

A recent study estimated for every dollar invested in a school nursing program, society gains $2.20 in savings. Schools are often the first to identify a chronic condition.

National Center for Chronic Disease Prevention and Health Promotion, CDC (2017)

Chronic Disease Focus

Primary focus on:

- Asthma
- Diabetes
- Epilepsy
- Food allergies

Secondary focus on:

- Mental health
- Dental care

- Asthma has been the focus of most studies that have student outcome data and is most frequently associated with school days missed.

- Students in schools with a higher percentage of low-income students are more likely to miss school because of asthma.

- Having asthma alone does not cause absenteeism or lower academic achievement.

CDC's National Asthma Control Program (2013)

State Comparison

Nebraska is tied with New Jersey
as the 2nd lowest state
for prevalence of asthma.
(2015 data)

BUT

Nebraska has the 6th highest
mortality rate in the nation.
(2016 data)

Centers for Disease Control and Prevention (2018)

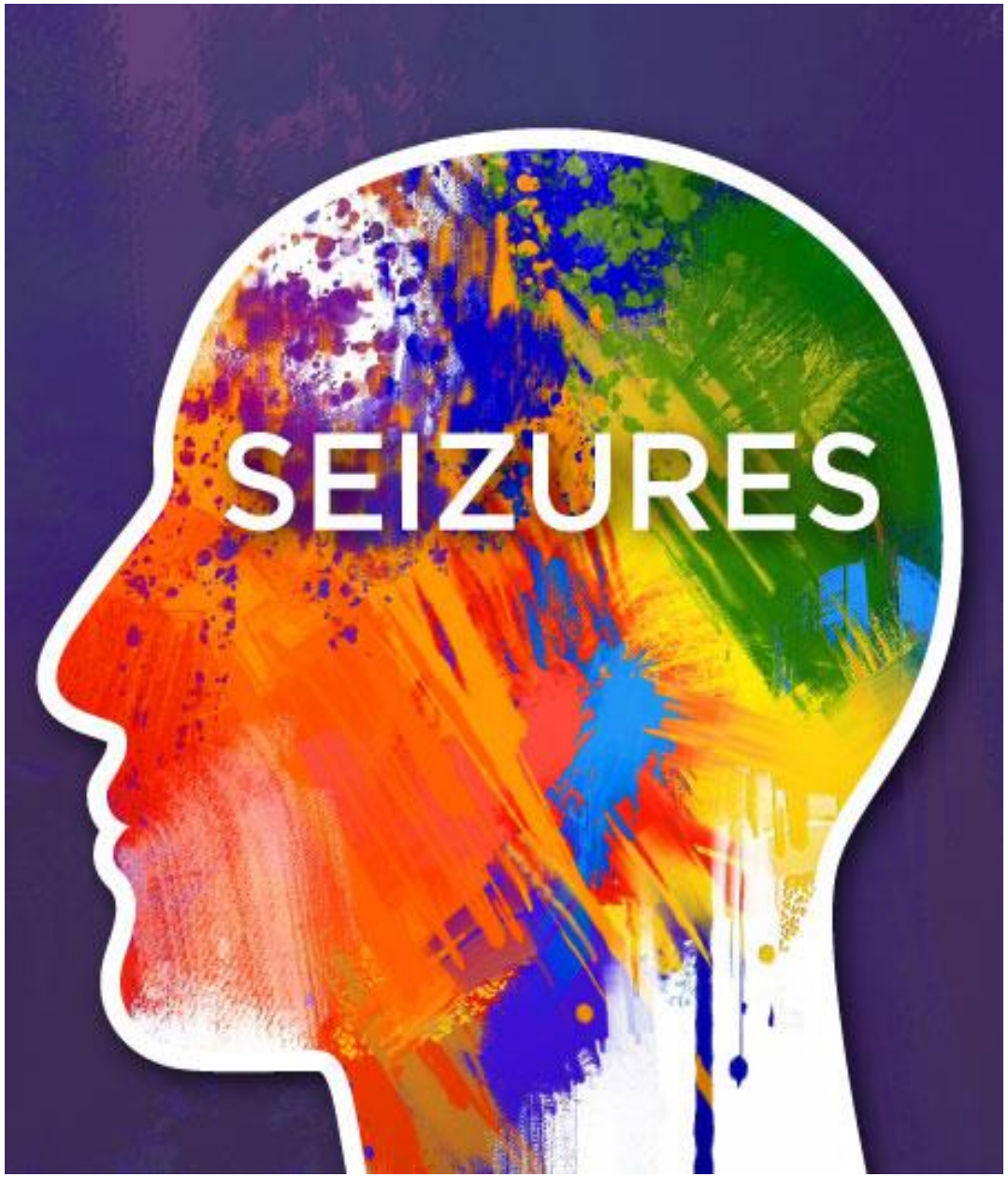
Diabetes

- Medical care is 2.3 times higher than what costs would be in the absence of diabetes.

- About 193,000 Americans under age 20 are estimated to have diagnosed diabetes, approximately 0.24% of that population.

- Rate changes from 2002-2012
  - Type 1: 1.8% yearly increase
  - Type 2: 4.8% yearly increase

CDC National Diabetes Statistics Report (2017).

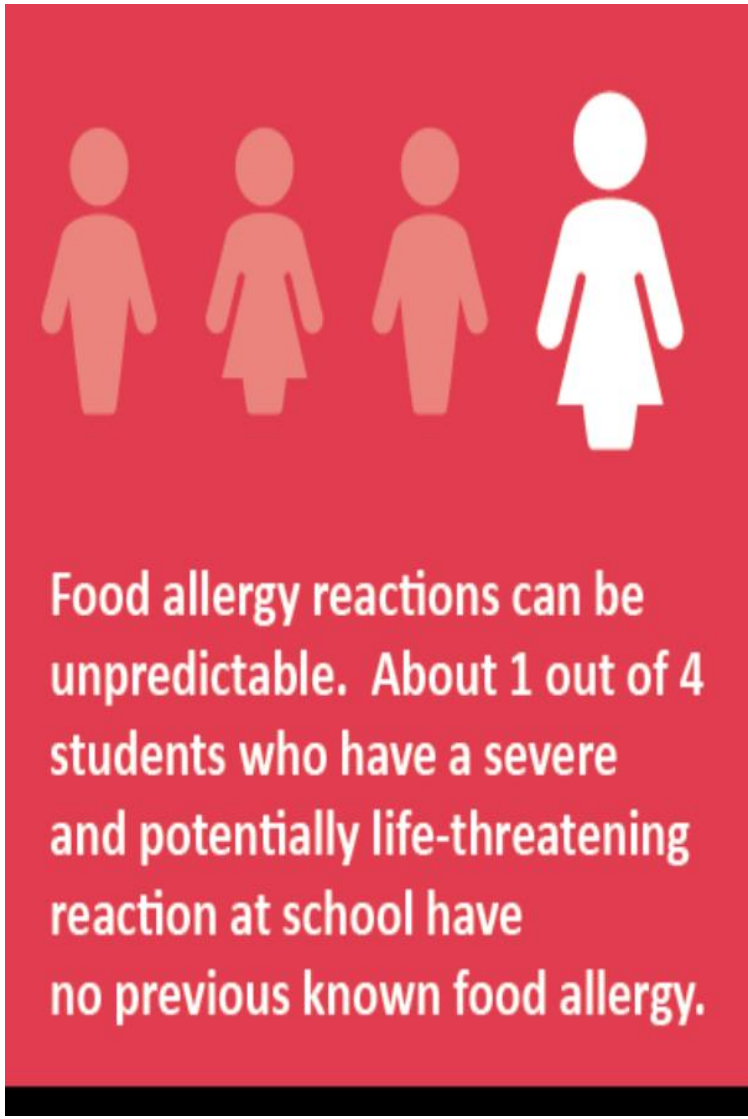


- Epilepsy affects up to one percent of the population in the US.
- More than 45,000 children are diagnosed with epilepsy each year.
- There are over 40 types of seizures, and each type can look different from the others.

Epilepsy Society (n.d.)

Food Allergies

- More than 170 foods have been reported to cause reactions in the US
- Reactions can occur in a matter of seconds or be delayed for a couple of hours
- More than 15% of students with food allergies have a reaction at school
- Approximately 20-25% of epinephrine injections at school are given to students who do not have a known food allergy



Food Allergy Research & Education (n.d.)

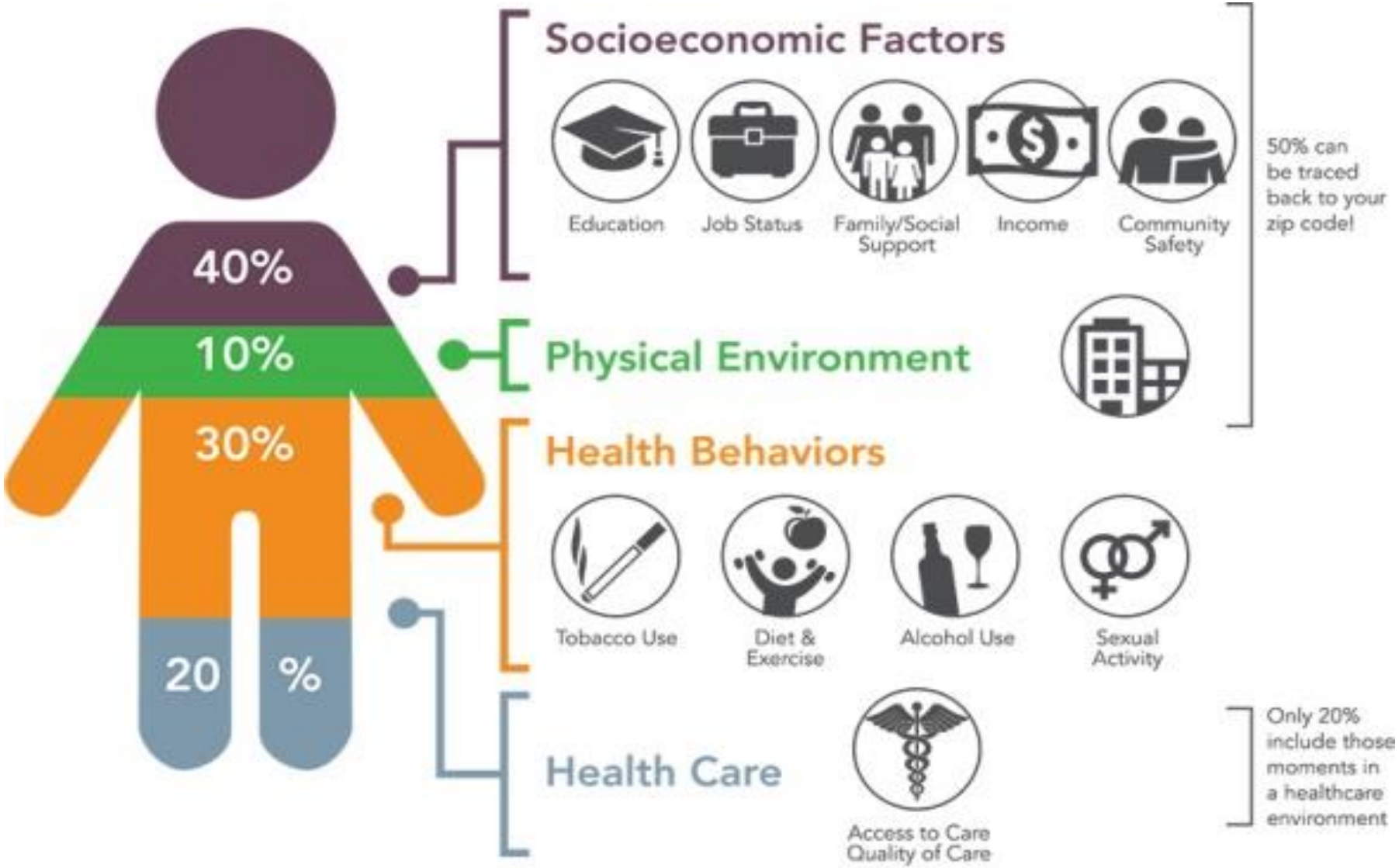
Chronic Disease & Equity

There are numerous factors affecting a person's health such as:

- Physical and social environments
- Education
- Genetics
- Race
- Financial status
- Stress

A student's health is a combination of numerous factors.

Health behaviors make up **30%** of overall health.



Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

Partnerships / Future Work

We would LOVE to partner with you!

- Parental engagement focus group
- Simulation in Motion – Nebraska (SIM-NE)
  - Didactic education/training followed by hands-on training in a state of the art simulation truck
  - Training such as: Stop the Bleed, injury prevention & concussion, anaphylaxis
- Nebraska Asthma Coalition (NAC)
  - Inhaler technique form to teach kids correct inhaler use

Partnerships (cont.)

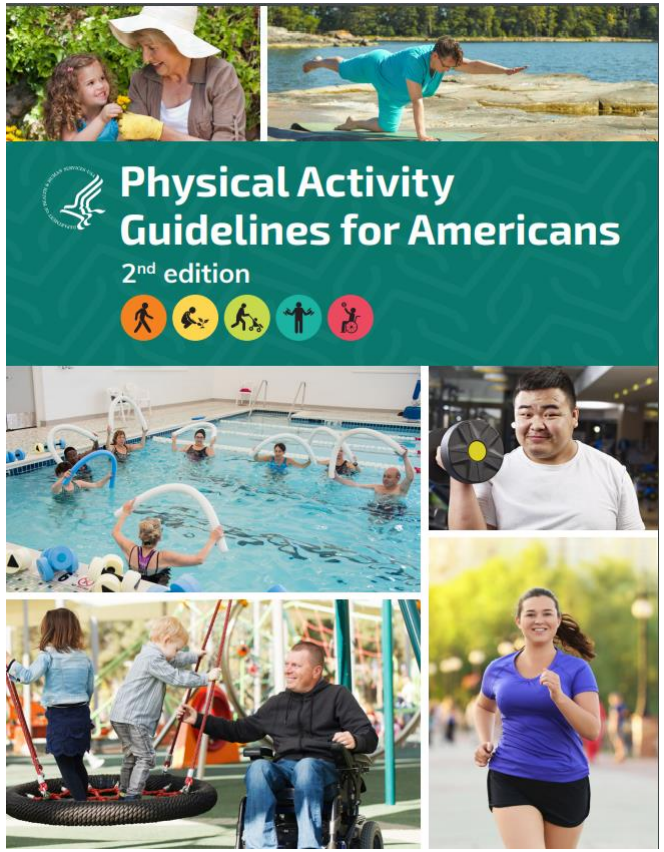
- Project ECHO: School Health Series
  - Ten week series, one hour each, CEUs
  - Topics include:

    -Managing chronic health conditions, concussions, obesity, parental engagement, diabetes, asthma & food allergies, immunizations, dental, epilepsy, behavioral health

- Other training, education, and professional development opportunities
  - For nurses and non-medical staff

Physical Activity and Physical Education for Student Success

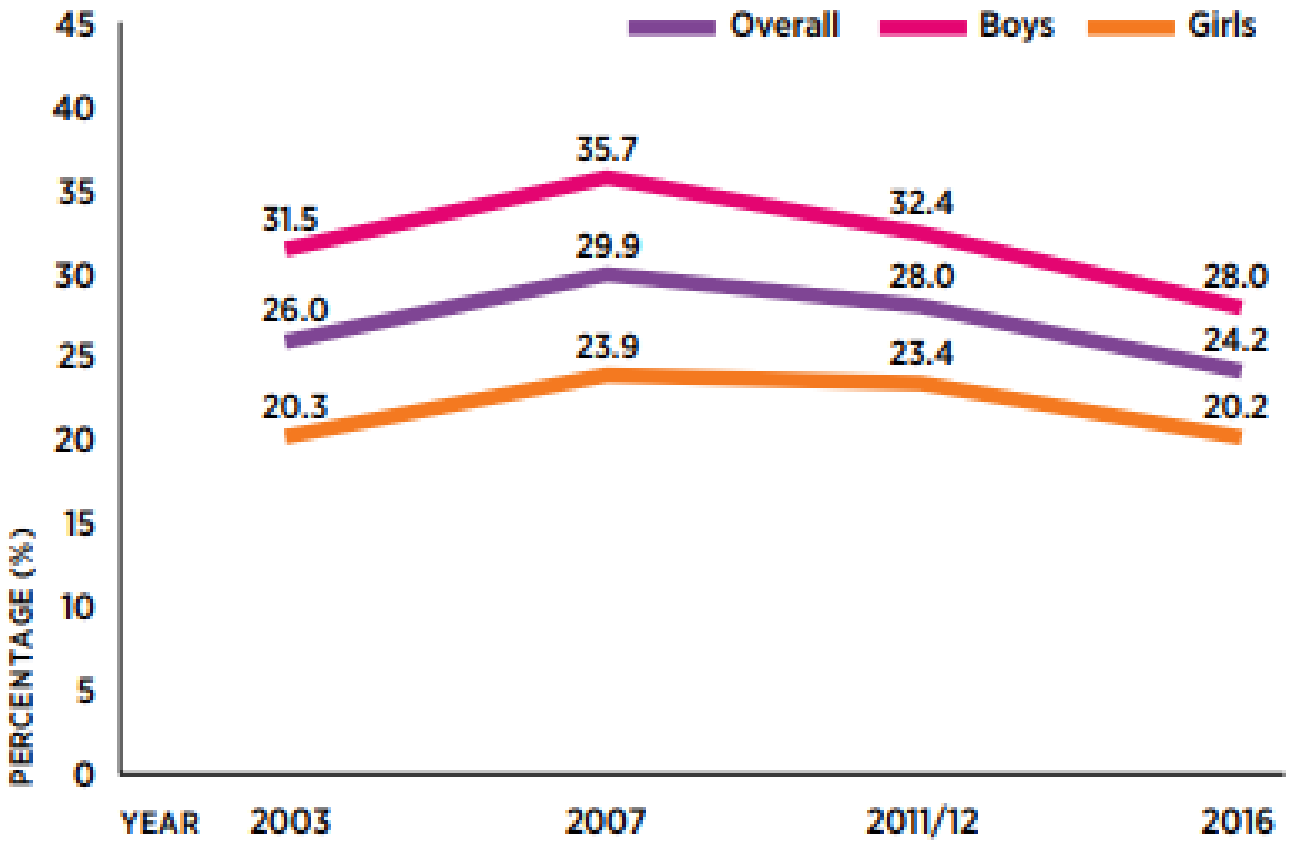
Physical Activity (PA) Recommendations



Children and adolescents 6-17 years of age

- 60 minutes of moderate to vigorous PA per day
  - At least 3 days a week of vigorous PA
  - At least 3 days a week of muscle-strengthening PA
  - At least 3 days a week of bone-strengthening PA

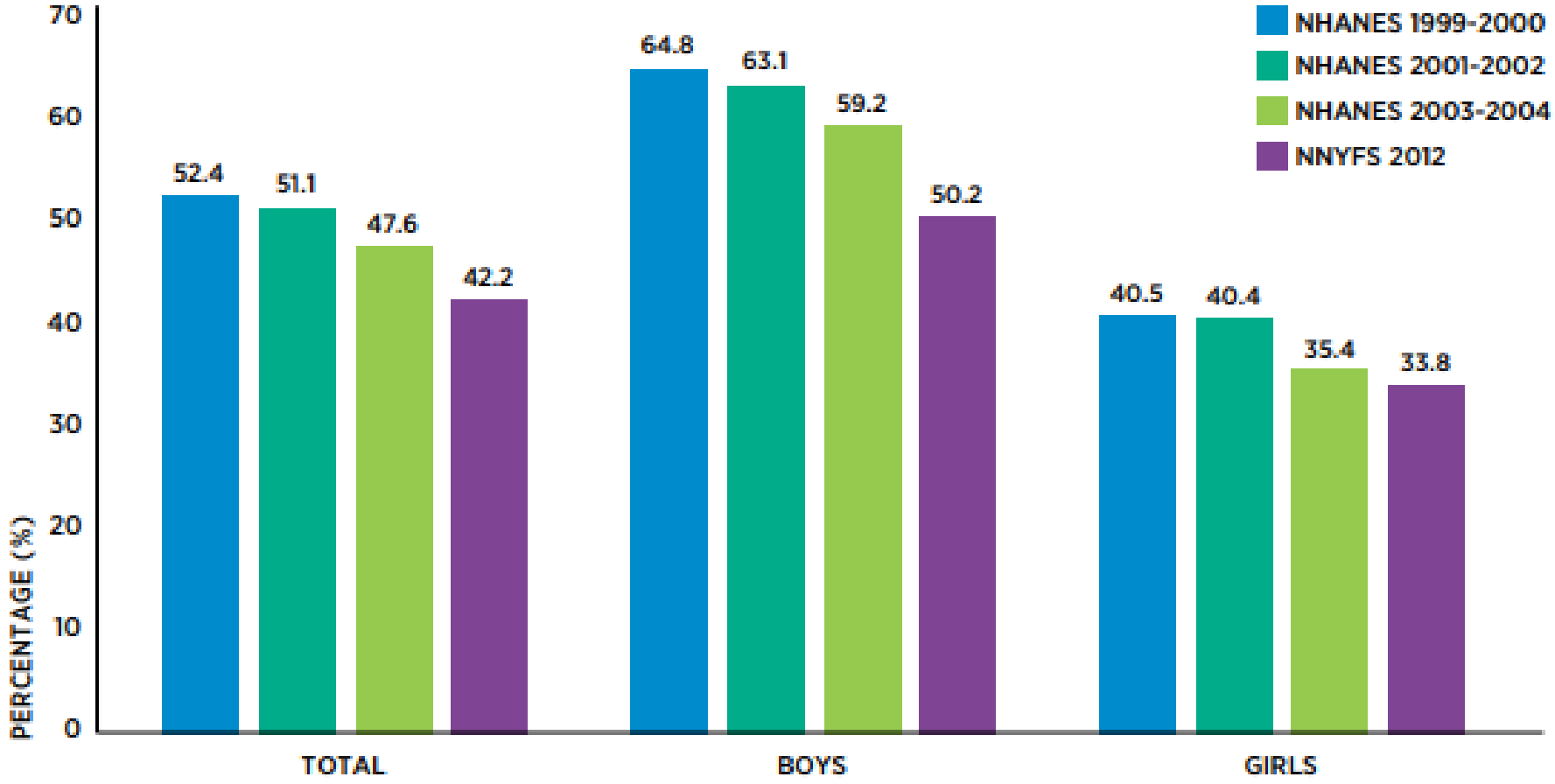
Figure 2 Percentage of 6-17 year-old children who engaged in at least 60 minutes of physical activity every day, by gender and survey period: U.S., 2003 to 2016.



Source: NSCH[8]

Diagram from 2018 US Report Card on Physical Activity for Children and Youth

Figure 9 Percentage of youth aged 12 to 15 years reaching adequate levels of cardiorespiratory fitness, by gender and survey period: U.S., 1999 to 2012.



Source: Adapted from Gahche et al.[60]

Diagram from 2018 US Report Card on Physical Activity for Children and Youth

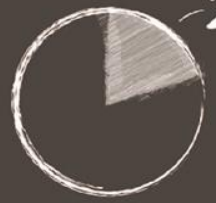
Benefits of Physical Activity

active kids learn better

ACTIVE LIVING RESEARCH

physical activity at school is a win-win for students and teachers

GRADES:



20% more likely to earn an A in math or English

STANDARDIZED TEST SCORES:

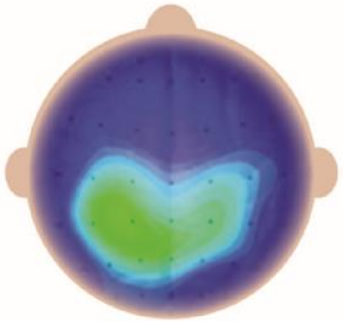
JUST ONE PHYSICALLY ACTIVE LESSON CREATES:

13% increase in students' physical activity for the week

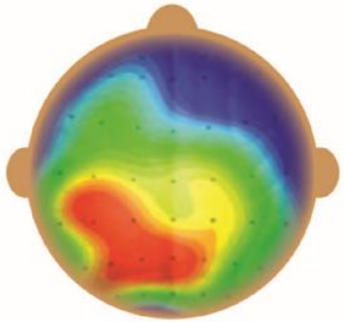
21% decrease in teachers' time managing behavior

physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:



after 20 minutes of sitting quietly



after 20 minutes of walking

Red areas are very active; blue areas are least active.

MORE RESULTS:

after 20 minutes of physical activity:

students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months:

memory tasks improved 16%

SOURCES: Donnelly J.E. and Lambourne K. (2011). Classroom-based physical activity, cognition, and academic achievement. Prev Med. 52(Suppl 1):S36-S42. Hillman C.H. et al. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. Neuroscience. 159(3):1044-1054. Kamijo K. et al. (2011). The effects of an afterschool physical activity program on working memory in preadolescent children. Dev Sci. 14(5):1046-1058. Kibbe D.L. et al. (2011). Ten years of TAKE 10!: integrating physical activity with academic concepts in elementary school classrooms. Prev Med. 52(Suppl 1):S43-S50. Nelson M.C. and Gordon-Larson P. (2006). Physical activity and sedentary behavior patterns are associated with selected adolescent health risk behaviors. Pediatrics, 117(4): 1281–1290.

Learn more about why active kids learn better and how schools can help at activelivingresearch.org/activeeducationbrief.

How Physical Activity Impacts Academic Achievement

IMMEDIATE BENEFITS

Students are better able to concentrate on classroom tasks

Enhances student learning

LONG-TERM BENEFITS

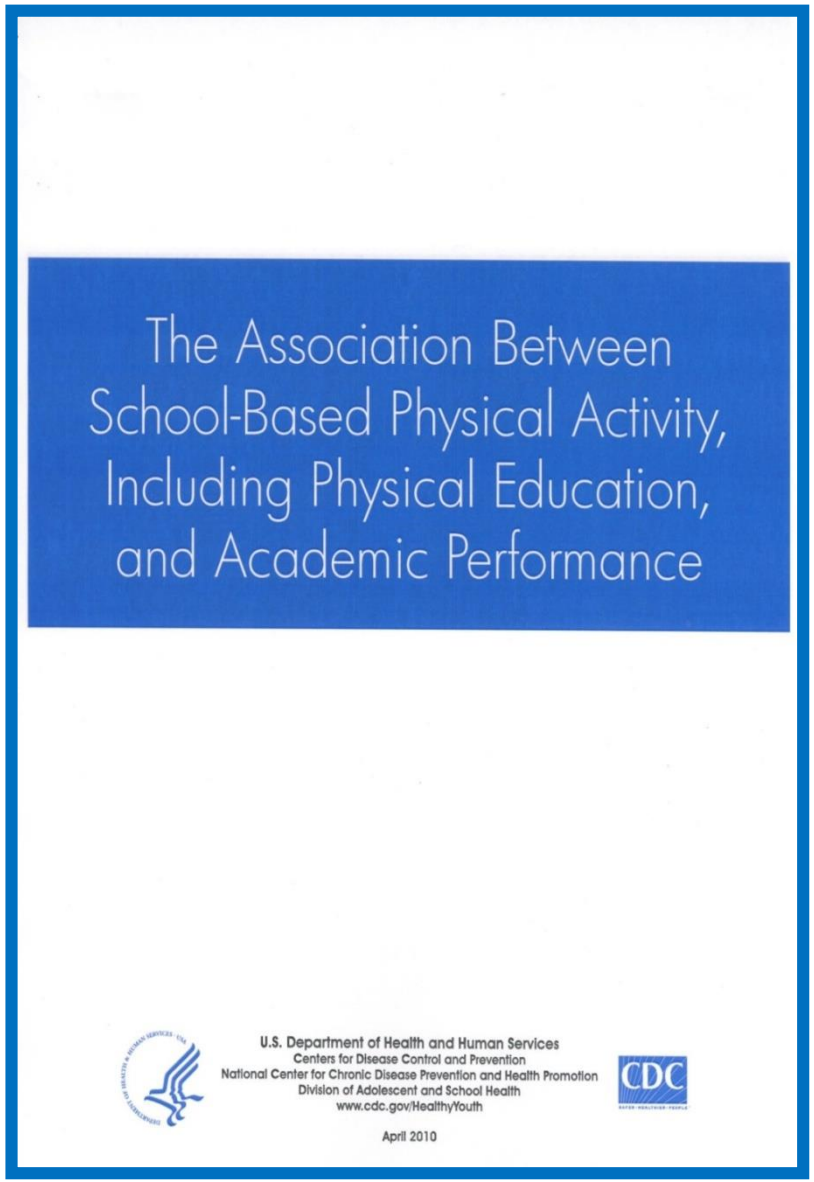
Students increase their physical fitness ability

Students Engage in Physical Activity

Improves school connectedness and engagement

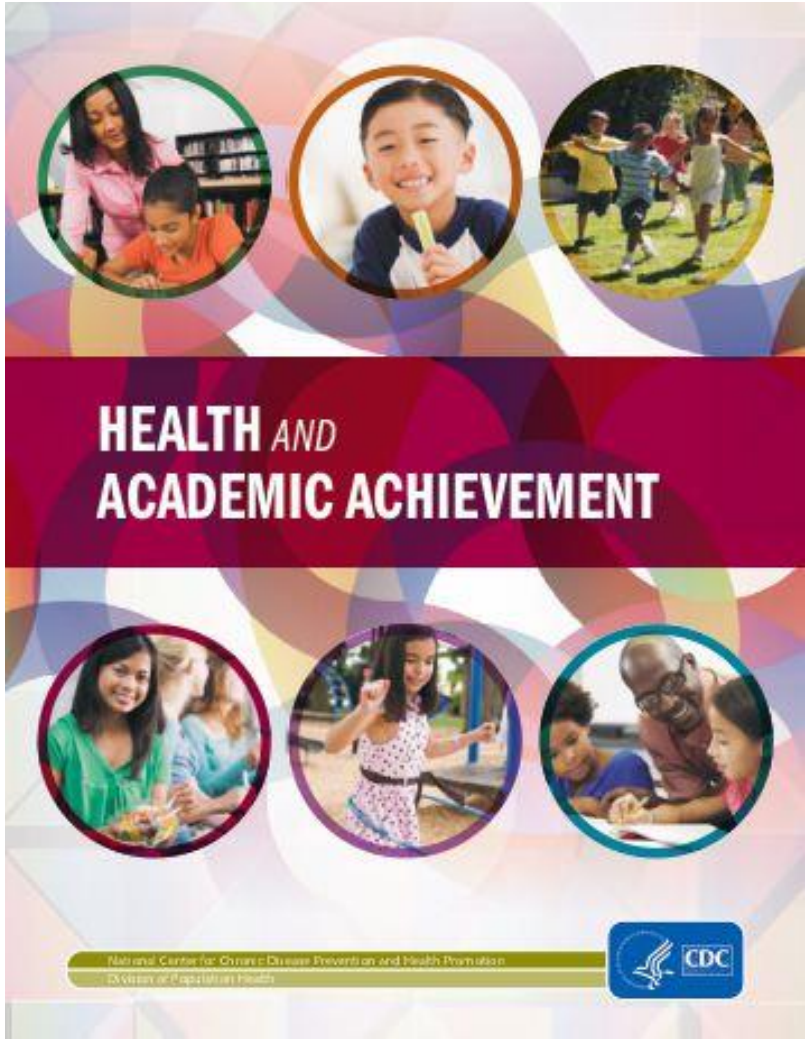
Increases academic achievement and school climate

Source: Castelli, Centeio, Hwang, Barcelona, Glowacki, Calvert, & Nicksic. (2014). The history of physical activity and academic performance research: Informing the future. The Monographs for the Society for Research in Child Development. Basch CE. Healthier Students Are Better Learners. A Missing Link in Efforts to Close the Achievement Gap. New York. New York. Columbia University, 2010.



- **Increasing or maintaining time for PE may help, and does not appear to adversely impact, academic performance**

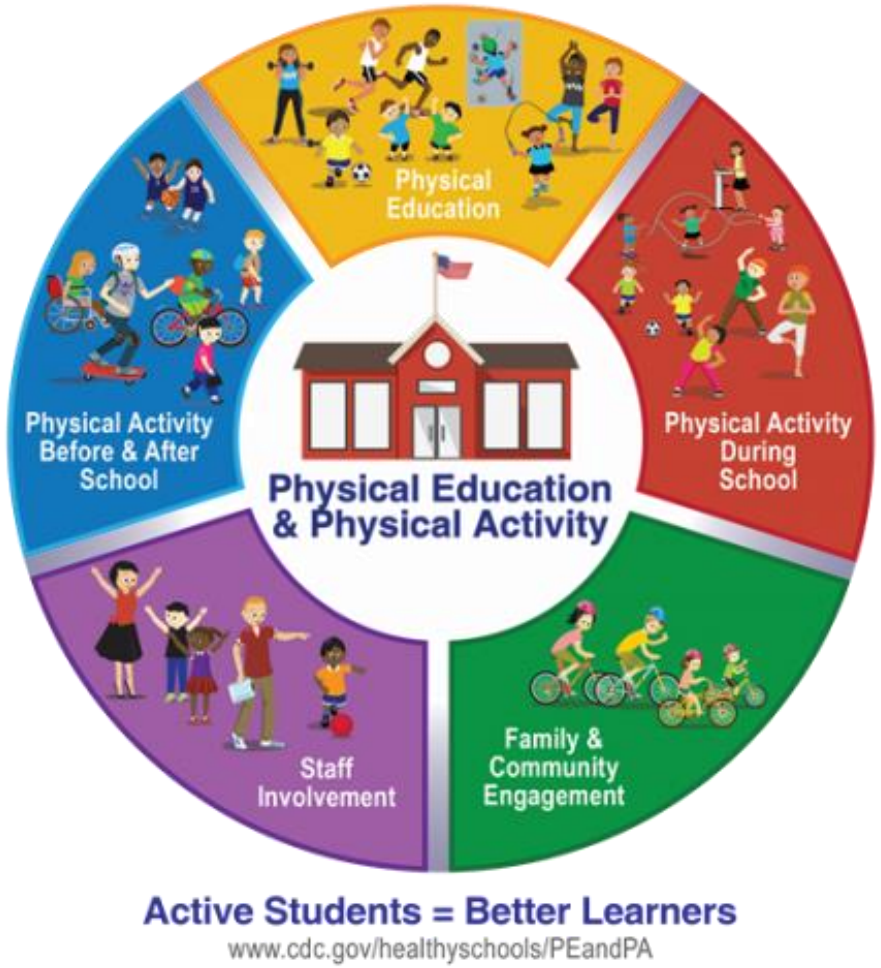
- **Substantial evidence that school-based physical activity can:**
  - **help improve academic achievement (including grades and standardized test scores)**
  - **have a positive impact on cognitive skills, attitudes toward school, and academic behavior**



- Better grades, school attendance, cognitive performance and classroom behaviors.
- Participation in PE associated with better grades, test scores and classroom behavior.
- Time spent in recess has positive affect
- PA Breaks have positive affect.
- Extracurricular physical activity (i.e. interscholastic sports)

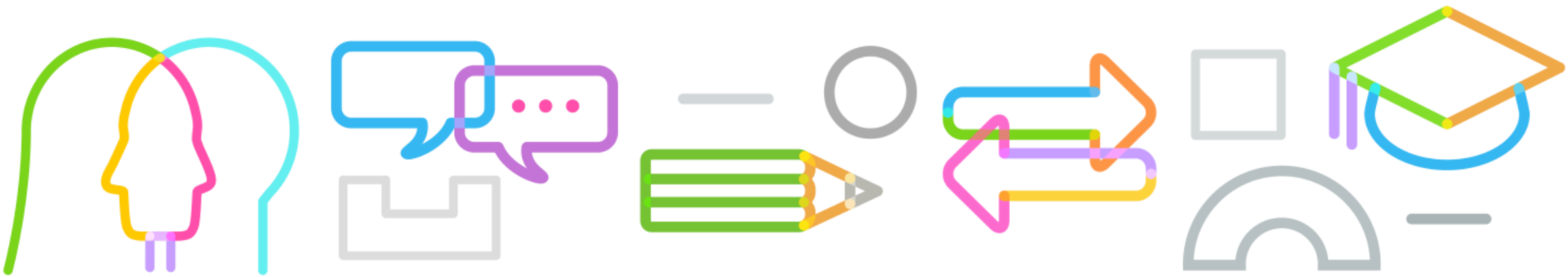
https://www.cdc.gov/healthyyouth/health_and_academics/pdf/health-academic-achievement.pdf

Areas for Intervention



- High Quality PE
- Recess
- Brain breaks
- Active learning strategies
- Activity Clubs
- Intramurals
- Access to facilities
- Staff Wellness
- Family/Community Events

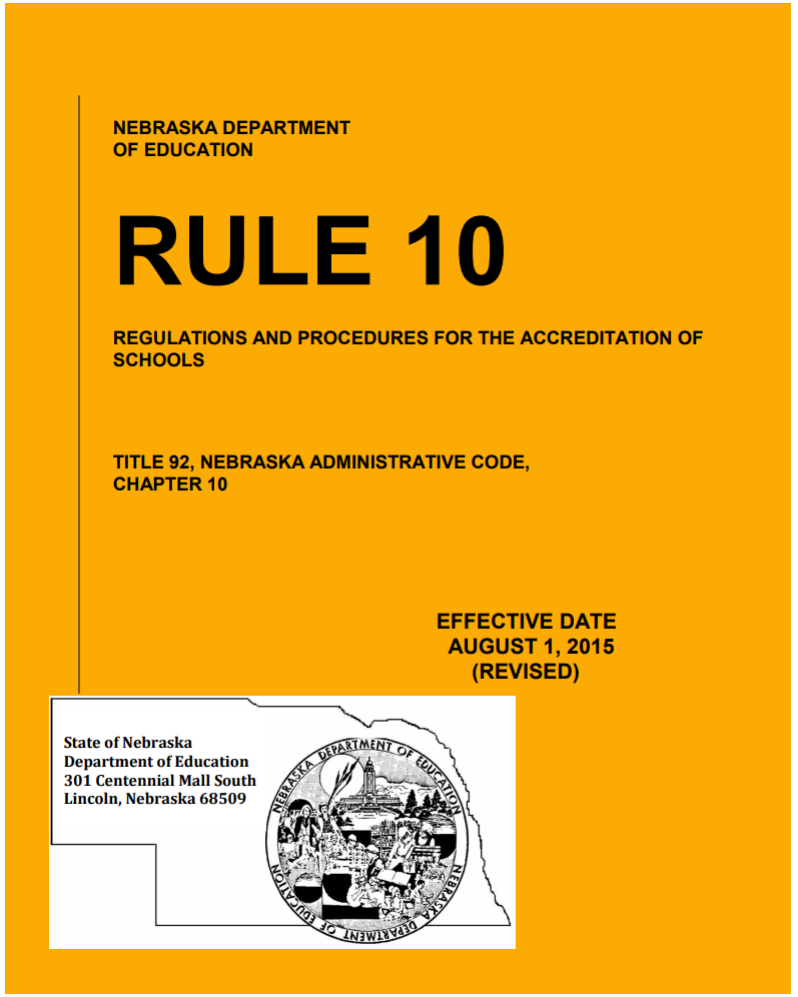
Physical Education



Rule 10

(Title 92 NE administrative code, chapter 10)

- Health & Physical Education is required for students in grades K-8
- High schools are required to provide PE
  - 20 instructional units OR two years of daily classes in personal health & physical fitness
  - Local control for graduation requirements
  - Practice for and participation in interscholastic athletic activities are not accepted as a substitute



Physical Literacy

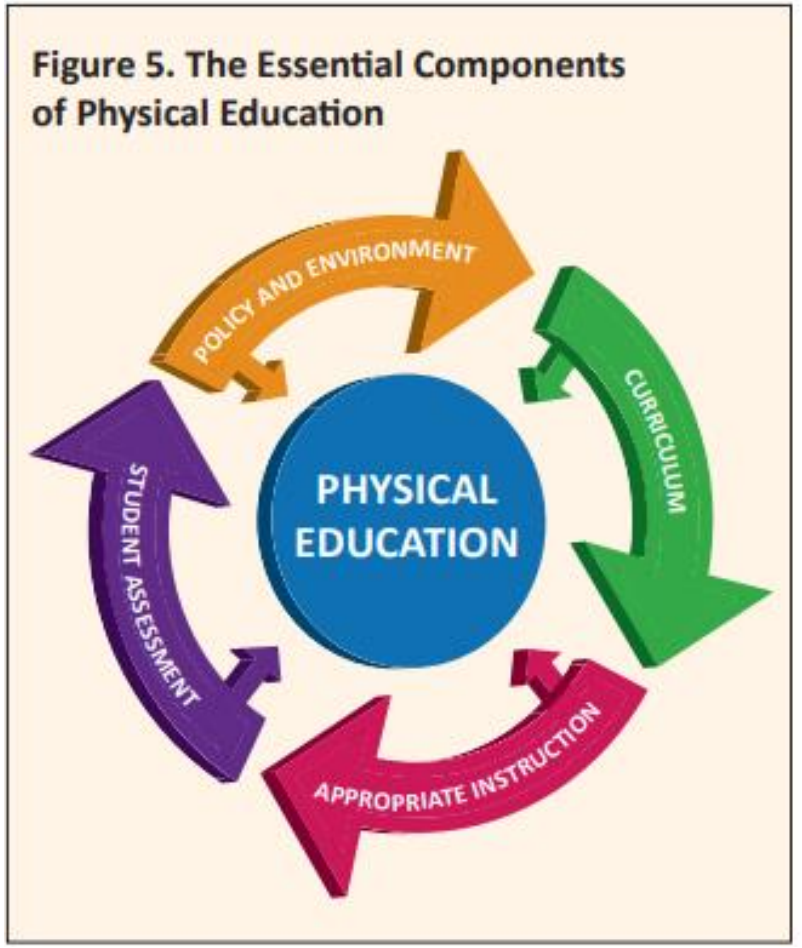
To pursue a lifetime of healthy physical activity, a physically literate individual:

- Has learned the skills necessary to participate in a variety of PA
- Is physically active
- Knows the implications and benefits of involvement in various types of PA
- Participates regularly in PA
- Values PA and its contributions to a healthful lifestyle

-National Standards & Grade-Level Outcomes for K-12 Physical Education (2014), SHAPE America.

Essential Components of Physical Education

- Policy and Environment
- Curriculum
- Appropriate Instruction
- Student Assessment



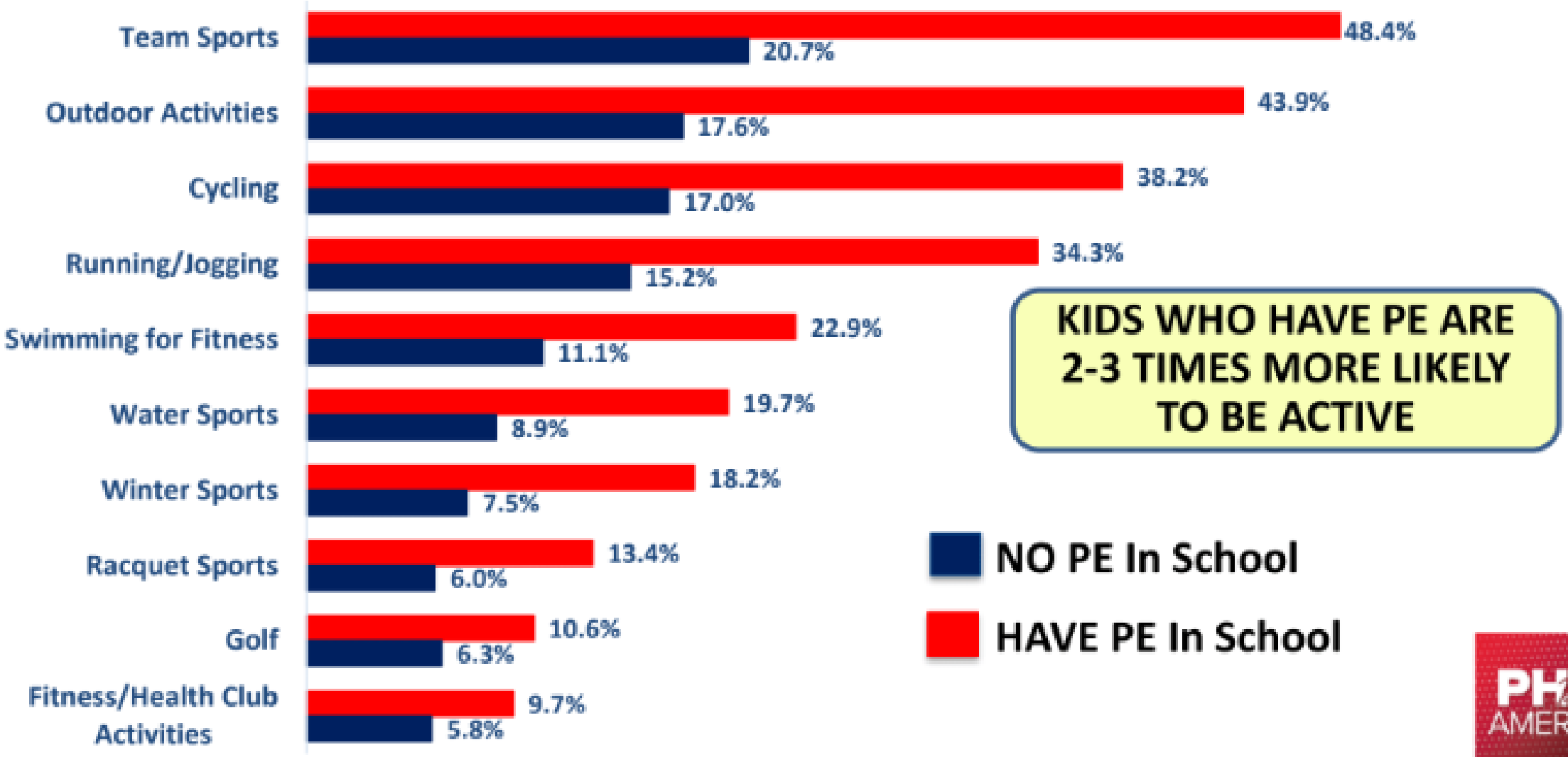
-Comprehensive Physical Activity Program (CSPAP) 2014, Center for Disease Control.

What is the difference between physical activity and exercise?

What is the difference between physical education and athletics?

What is physical fitness?

% OF KIDS ACTIVE OUTSIDE OF SCHOOL IN…

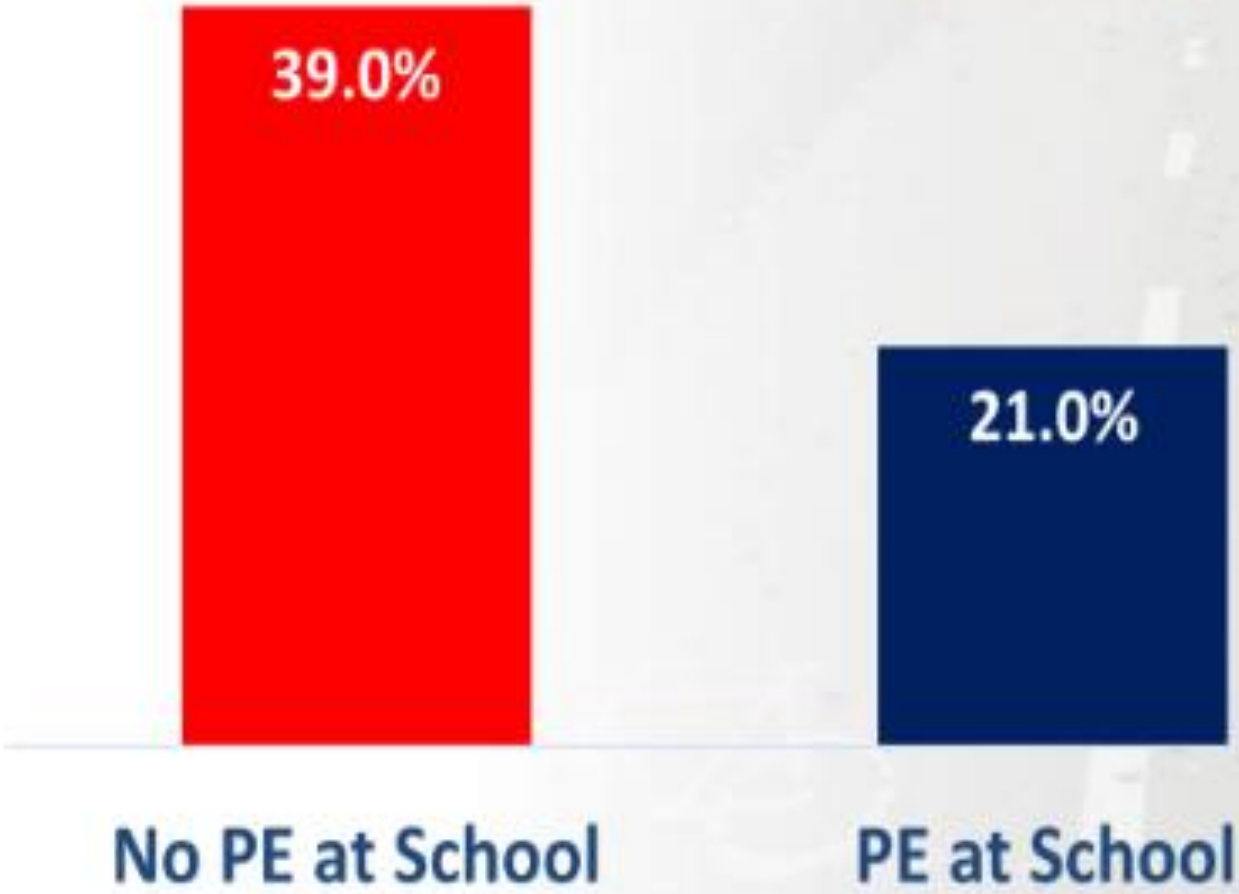


Source: Physical Activity Council by Sports Marketing Surveys, Inc., 24,000 Americans

PHIT AMERICA

HAVING PE CUTS PHYSICAL INACTIVITY IN HALF FOR ADULTS!

% OF AMERICANS WHO ARE INACTIVE TODAY

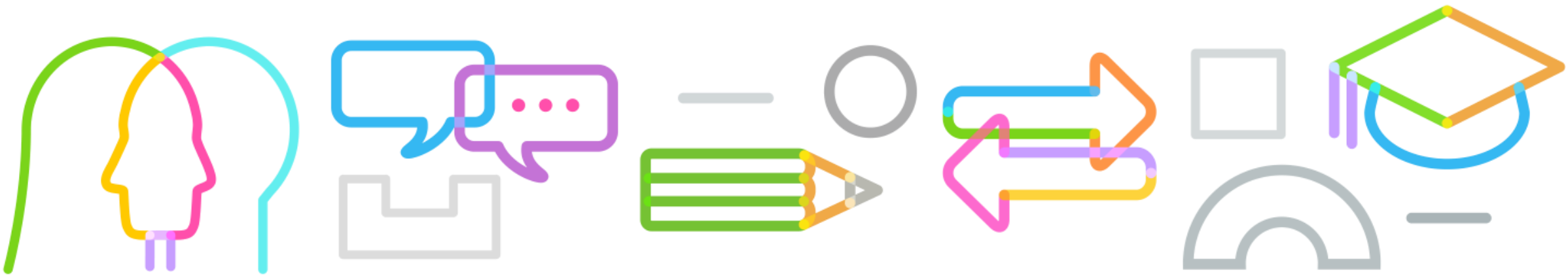


PE CREATES LIFE LONG PARTICIPANTS

Source: Physical Activity Council by Sports Marketing Surveys, Inc., 24,000 Americans

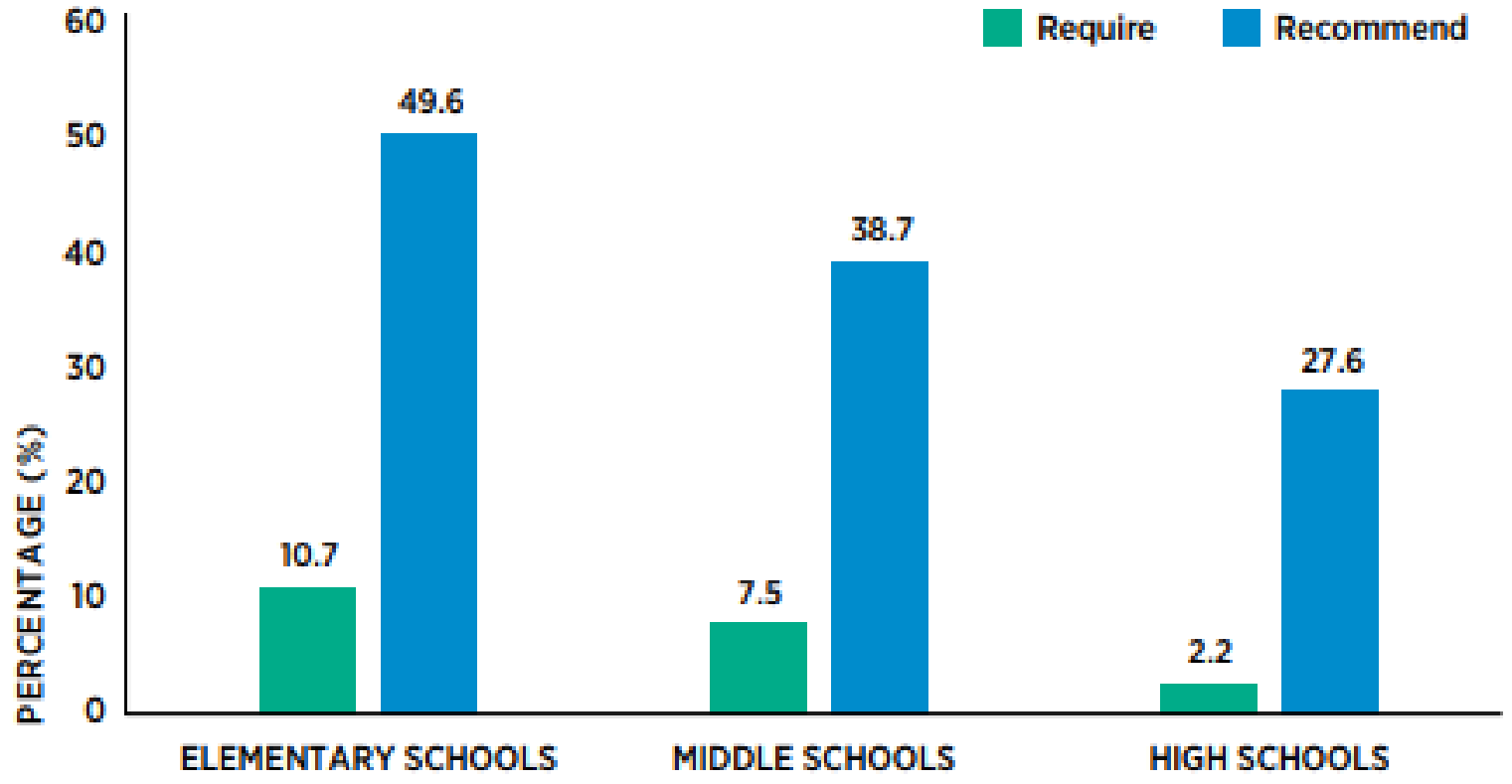
PHIT AMERICA

Physical Activity During the School Day



PA Breaks During the Day

Figure 8 Percentage of U.S. school districts that require or recommend schools provide regular classroom physical activity breaks.

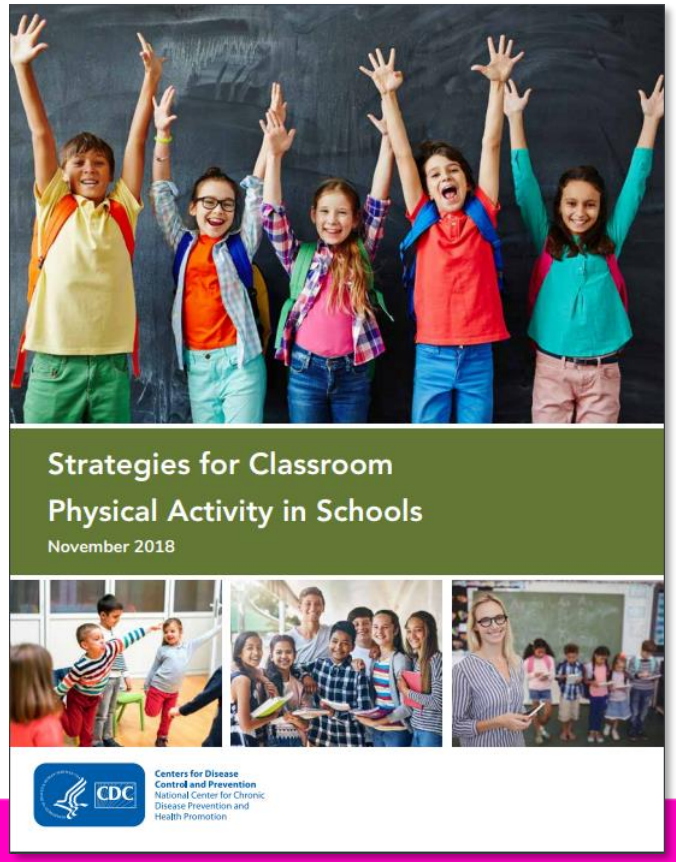


Source: 2016 SHPPS[17]

Diagram from 2018 US Report Card on Physical Activity for Children and Youth

PA During the School Day

Classroom PA



Recess

National Guidance on Classroom PA

- Use classroom PA as opportunities to reinforce skills taught during physical education
- Incorporate physical activity into lesson plans and/or as breaks from academic subjects
- Provide appropriate time for physical activity breaks (physical activity breaks can last up to 30 minutes, but are typically between 5-15 minutes long)

National Guidance on Recess

Policy + Practice → 20 minutes per day

- Safe, adequate spaces for recess
- Prohibit exclusion from recess
- Recess before lunch
- Provide supervisors with PD

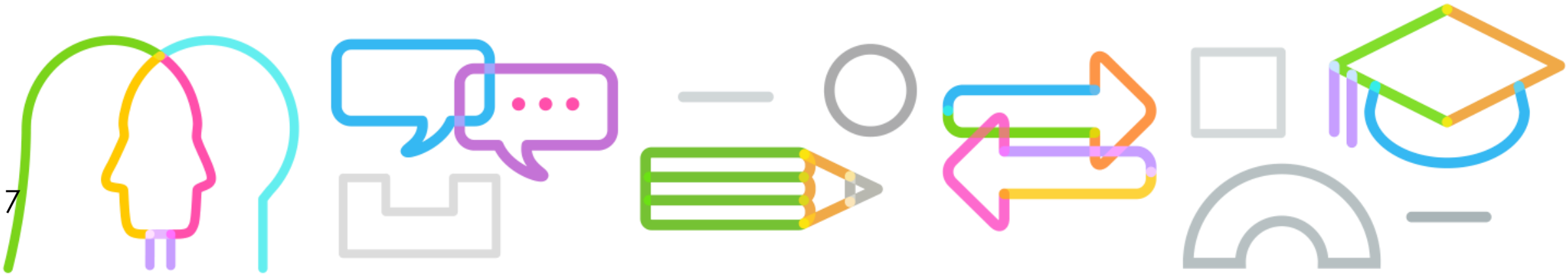
Recess is a period of time when students are encouraged to be physically active and engaged with their peers in activities of their choice, at all grade levels, kindergarten through 12th grade.

Getting Started

Promoting a Culture of Health

Take Into Account Current Practices

- Many of your current practices may align with the Whole Child model:
- Offering school breakfast after the bell or supporting access to healthy foods options throughout the school day.
- Maintaining recess periods for elementary students or offering active learning strategies.
- Ensuing that students with health conditions have support not only from the health office but classroom teachers and school staff.
- Supporting school connectedness efforts – establishing positive relationships with students, community members and families.



WSCC and Local Wellness Policies

Schools will need to complete a triennial review by July 2020
To demonstrate progress made

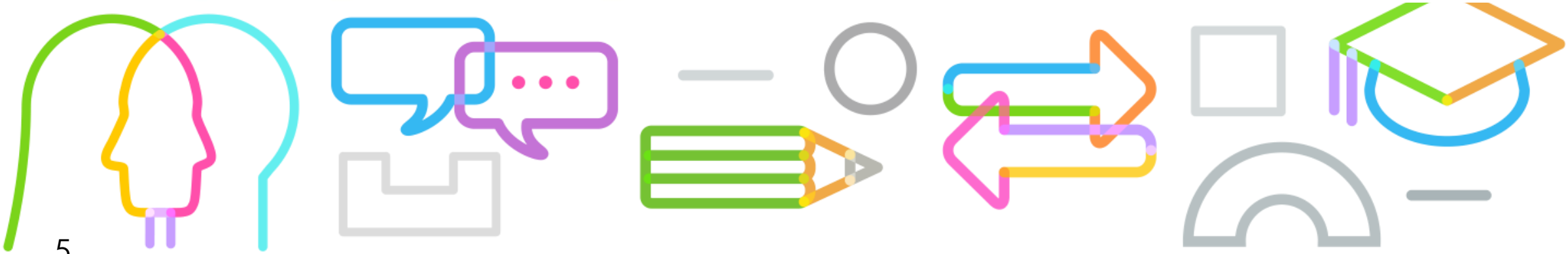
AQuESTT Connections

- The Whole Child model works to support AQuESTT through the tenets of:
  - Positive Partnerships, Relationships and Success, by engaging in best practices around family, and community engagement into educational experiences and opportunities.
  - Educator Effectiveness by providing professional development to provide educators with the skills to allow them to support the whole child model.

Integrating Health and Wellness into School Improvement Plans

The opportunities to incorporate health and wellness into school improvement planning are abundant, and there are many low-cost and no-cost resources to support health-related initiatives in schools. Focusing on health is something that also has an immediate and intimate appeal to many classroom teachers, because teachers understand so vividly just how important the link between health and learning, between healthful student habits and academic outcomes is.

Dr. John Skretta
Superintendent, Norris School District, Nebraska



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5. The Whole School, Whole Community, Whole Child Model: A Guide to Implementation (2017). National Association of Chronic Disease Directors.

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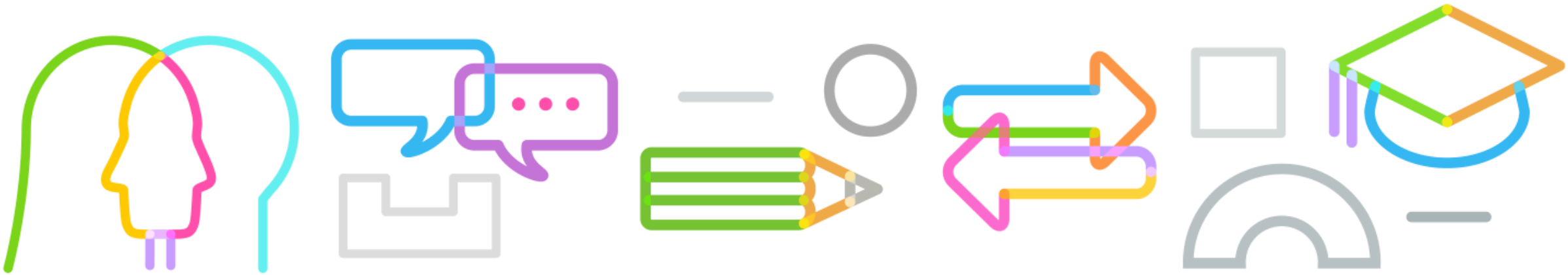

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